IN THE CLAIMS

1. (Currently Amended) A computer implemented method of sharing a resource amongst a plurality of applications issuing requests in different request classes, comprising the steps of:

i) dynamically assigning a priority to each of a plurality of request queues associated with respective ones of said request classes, such assigning being in accordance with a moving average resource allocation to each of said respective request classes and the priority assigned to a respective request queue being a function of the moving average resource allocation to the associated request class;

ii) receiving and queuing said requests from said applications in said plurality of request queues in accordance with said respective request classes;

iii) allocating said resource to one of said applications whose request has been queued longest in a highest priority one of said queues; and

iv) in response to said one of said applications relinquishing said resource, repeating steps i) to iii).

2. (Currently Amended) The computer implemented method of claim 1, wherein said step of dynamically assigning said priority to each of said plurality of request queues is implemented as follows:

$\mathbf{p_i} = 1.0$ if $\mathbf{u_i} <= \mathbf{min_i}$

$\mathbf{p_i} = 1.0 - (\mathbf{u_i} - \mathbf{min_i})/(\mathbf{max_i} - \mathbf{min_i})$ if $\mathbf{min_i} < \mathbf{u_i} <= \mathbf{max_i}$

$\mathbf{p_i} = 0.0$ if $\mathbf{u_i} >= \mathbf{max_i}$

where $\mathbf{p_i}$ is the priority assigned to the $\mathbf{i^{th}}$ one of said queues associate with the $\mathbf{i^{th}}$ one of said request classes, and $\mathbf{u_i}$ is the moving average allocated to said $\mathbf{i^{th}}$ one of said request classes and $\mathbf{min_i}$ and $\mathbf{max_i}$ are respectively the minimum and maximum allocations to said $\mathbf{i^{th}}$ one of said request classes.

3. (Currently Amended) The computer implemented method of claim 2, further including the step of updating said moving average of each of said request classes immediately upon allocating said resource.

4. (Currently Amended) The computer implemented method of claim 1, wherein the priority assigned to each of said plurality of request queues in accordance with said moving average resource allocation conforms to a predetermined linear function.

5-7. (Cancelled)

8. (Currently Amended) The computer implemented method of claim 1, wherein the priority assigned to each of said plurality of request queues in accordance with said moving average resource allocation conforms to a predetermined exponential function.

9. (Currently Amended) The computer implemented method of claim 1, wherein the priority assigned to each of said plurality of request queues in accordance with said moving average resource allocation conforms to a predetermined step function with steps of varying size.